C2A – Economics for Environment and Development

Instructors: Bejoy K Thomas (Coordinator - bejoy.thomas@atree.org), Durba Biswas (durba.biswas@atree.org), Sharad Lele (slele@atree.org)

Credits and contact hours: 3 credits, 48 hours

Course exemption test: 14th August 2013 (2:00 – 3:45pm)

Class schedule: Monday, Wednesday and Friday (12:00 – 12:50pm)

Objectives

The course will cover

- basic principles of economics, mainly micro-economics
- key concepts in environmental economics
- key concepts in development economics
- major tenets of political economic analysis

At the end of the course, the students will have

a) a flavour of how economic thought has evolved, what questions the discipline tries to answer and with what assumptions and methods
b) a basic understanding of micro-economic concepts, especially how economic agents make decisions and the effects economic policies can have
c) an idea of how environmental issues challenge some of the core assumptions of neoclassical economics, how economics has responded to these challenges and how the field of ecological economics pushes beyond the neoclassical ideas
d) an understanding of how issues of growth, development, poverty and inequality are dealt with in development economics as well as the critique and extensions from heterodox streams of economic analysis.

It is expected that the course will equip students to follow and critically assess research, discussions and debates in conservation, environment and development, which draws upon economic theories and tools.

Prerequisites and approach

No prerequisites required for the course. Basic mathematical training is desirable, not essential.

The course involves a mix of lecture and discussion based sessions. A combination of core and supplementary readings, including select chapters or sections from both textbooks and journal articles, will be used.

Course evaluation:

Participation 10%
Quizzes 40%
Final exam 50%

Overview and topics

Module 1
1.1 The economic problem
2.2 The circular flow of economic activity

Module 2
2.1 Demand analysis
2.2 Production and costs
2.3 Market and market structures
2.4 The concept of efficiency

Module 3
3.1 Market failure and externalities
3.2 Neo classical economics of renewable and non renewable resources
3.3 Tools: Benefit cost analysis and valuation techniques
3.4 Ecological economics I: Critiques of circular flow, aggregation and benefit cost analysis
3.5 Ecological economics II: natural capital and ecosystem services

Module 4
4.1 Elements of macro economics, basics of national income accounting and green accounting
4.2 Growth and development
4.3 Poverty and inequality
4.4 Heterodox economics and multidimensional indicators

Module 5
5.1 Political economy
5.2 Marxian economics

Schedule

Session	Date	Topic	Instructor	Readings
1	12 Aug	Introduction to the course; the economic problem; circular flow	BT	SAM Ch. 1 and Varian 2009
2	14 Aug	Elements of economic thought; micro and macro economics	BT	TBD
3	16 Aug	Demand, supply and market	BT	SAM Ch. 3
4	19 Aug	Elasticity of demand	BT	SAM Ch. 4A
5	21 Aug	Utility theory	BT	SAM Ch. 5
6	23 Aug	Consumers surplus QUIZ 1	BT	SAM Ch. 5
7	26 Aug	Theory of production; the production function; total, average and marginal; law of diminishing returns	DB	SAM Ch. 6
8	28 Aug	Returns to scale; short run and long run; productivity and aggregate production function	DB	SAM Ch.6
9	30 Aug	Cost analysis; total cost components; components of marginal and average cost	DB	SAM Ch. 7
10	2 Sept	Components of marginal and average cost	DB	SAM Ch.7
11	4 Sept	Links between production and cost; opportunity cost concept QUIZ 2	DB	SAM Ch. 7
12	6 Sept	Market structure: perfect competition	DB	SAM Ch. 8
13	11 Sept	Market structure: perfect competition	DB	SAM Ch. 8
14	13 Sept	Perfect competition	DB	SAM Ch. 8
15	16 Sept	Imperfect competition	DB	SAM Ch. 9
16	18 Sept	Imperfect competition	DB	SAM Ch. 9
17	20 Sept	Monopoly	DB	SAM Ch. 9
18	23 Sept	Oligopoly	DB	SAM Ch. 10
19	25 Sept	Oligopoly	DB	SAM Ch. 10
20	27 Sept	Monopolistic competition; price discrimination	DB	SAM Ch. 10
21	30 Sept	Monopolistic competition; price discrimination QUIZ 3	DB	SAM Ch. 10
22	7 Oct	Welfare theory; social welfare function; edgeworth box; pareto	DB	TBD

		optimality		
23	9 Oct	Welfare theory; social welfare function; edgeworth box; pareto optimality	DB	TBD
24	11 Oct	Welfare theory; social welfare function; edgeworth box; pareto optimality	DB	TBD
25	16 Oct	Efficiency and equity	DB	TBD
26	18 Oct	Cost benefit analysis	DB	TBD
27	21 Oct	Introduction to Environmental economics	DB	HAN Ch. 2 and 3
28	23 Oct	Market failure; externalities, property rights and Coase theorem	DB	HAN Ch. 2 and 3
29	25 Oct	Environmental valuation; Pigouvian tax, classification of valuation methods	DB	HAN Ch 3 and TBD
30	28 Oct	Environmental valuation; Pigouvian tax, classification of valuation methods	DB	HAN Ch 3 and TBD
31	30 Oct	Environmental valuation: exercises	DB	RMA, selected case studies
32	6 Nov	Environmental valuation: exercises QUIZ 4	DB	RMA, selected case studies
33	8 Nov	Economics of renewable resources: forestry	SL	TBD
34	11 Nov	Economics of renewable resources: fisheries	SL	TBD
35	13 Nov	Economics of non-renewables	SL	TBD
36	15 Nov	Economics of non-renewables	SL	TBD
37	18 Nov	Ecological Economics: critique of circular flow	SL	TBD
38	20 Nov	Ecological Economics: natural capital & ecosystem services QUIZ 5	SL	TBD
39	22 Nov	Elements of macro economics: national income accounting and green accounting	BT	TBD
40	25 Nov	Fundamentals of development economics; growth and development	BT	TOD Ch. 1 and TBD
41	27 Nov	Key theories of development: Rostow, Harrod-Domar, Lewis, Dependence theory	BT	TOD Ch. 3 and 4
42	29 Nov	Key theories of development: Rostow, Harrod-Domar, Lewis,	BT	TOD Ch. 3 and 4

		Dependence theory		
43	2 Dec	Poverty	BT	TOD Ch. 6
44	4 Dec	Inequality and distribution of income	BT	TBD
45	6 Dec	Heterodox approaches to development	BT	TBD
46	9 Dec	Multidimensional approaches to poverty; poverty as capability deprivation	BT	TBD
47	11 Dec	Political economy and Marxian economics	BT	TBD
48	13 Dec	Extensions of political economy QUIZ 6	BT	TBD
Written exam	18 Dec			

BT: Bejoy K Thomas, DB: Durba Biswas, SL: Sharachchandra Lele

Core text books

- Samuelson, P. A. and W. Nordhaus (2009) Economics, Tata McGraw-Hill (SAM) http://www.mhhe.com/economics/samuelson17/
- Daly, H. E and J. Farley (2004) Ecological Economics: Principles and Applications, Island Press (DAL)
- Hanley, N., J. F. Shogren and B. White (2004) Introduction to environmental economics, Oxford University Press (HAN)
- Todaro, M. P and S. C. Smith (2009) Economic Development, Pearson Education Limited (TOD)

Additional readings (subject to changes/additions)

- Varian, H. R (2009) How to build an economic model in your spare time, mimeo, available at http://people.ischool.berkeley.edu/~hal/Papers/how.pdf (last downloaded: June 24, 2013)
- Rietbergen-McCracken, J and A Hussein (Eds.) (2000) Environmental valuation: A worldwide compendium of case studies, Earthscan Publications Limited (RMA)