

Course title

**C2a – Economics for Environment and Development**

Instructors

Durba Biswas (coordinator), Bejoy K Thomas, Ulka Kelkar

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.

Credits and contact hours

3 credits, 48 hours

Grading

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

Time: 12.00-12.50

Days: Mondays, Wednesdays and Fridays

Exemption exam: 13-08-2015 (3.00-5.00 PM)

Session	Date	Topic	Instructor	Readings
1	10-08-2015	Introduction to the course; the economic problem; circular flow	DB+BT	SAM Ch. 1
2	12-08-2015	Elements of economic thought; micro and macro economics	BT	SAM Ch. 1
3	14-08-2015	Demand, supply and market	BT	SAM Ch. 3
4	17-08-2015	Elasticity of demand	BT	SAM Ch. 4A
5	19-08-2015	Utility theory	BT	SAM Ch. 5
6	21-08-2015	Consumers surplus QUIZ 1	BT	SAM Ch. 5
7	24-08-2015	Theory of production; the production function; total, average and marginal; law of diminishing returns	DB	SAM Ch. 6
8	26-08-2015	Returns to scale; short run and long run; productivity and aggregate production function	DB	SAM Ch.6
9	31-08-2015	Cost analysis; total cost components; components of marginal and average cost	DB	SAM Ch. 7
10	02-09-2015	Components of marginal and average cost	DB	SAM Ch.7
11	04-09-2015	Links between production and cost; opportunity cost concept QUIZ 2	DB	SAM Ch. 7
12	07-09-2015	Market structure: perfect competition	DB	SAM Ch. 8
13	09-09-2015	Market structure: perfect competition	DB	SAM Ch. 8
14	11-09-2015	Perfect competition	DB	SAM Ch. 8
15	14-09-2015	Imperfect competition	DB	SAM Ch. 9
16	16-09-2015	Imperfect competition	DB	SAM Ch. 9
17	18-09-2015	Monopoly	DB	SAM Ch. 9

18	21-09-2015	Oligopoly	DB	SAM Ch. 10
19	23-09-2015	Oligopoly	DB	SAM Ch. 10
20	25-09-2015	Monopolistic competition; price discrimination	DB	SAM Ch. 10
21	28-09-2015	Monopolistic competition; price discrimination QUIZ 3	DB	SAM Ch. 10
22	30-09-2015	Welfare theory; social welfare function; edgeworth box; pareto optimality	UK	TBD
23	05-10-2015	Welfare theory; social welfare function; edgeworth box; pareto optimality	UK	TBD
24	07-10-2015	Welfare theory; social welfare function; edgeworth box; pareto optimality	UK	TBD
25	09-10-2015	Efficiency and equity	UK	TBD
26	14-10-2015	Cost benefit analysis	UK	TBD
27	16-10-2015	Introduction to Environmental economics	DB	HAN Ch. 2 and 3
28	19-10-2015	Market failure; externalities, property rights and Coase theorem	DB	HAN Ch. 2 and 3
29	21-10-2015	Environmental valuation; Pigouvian tax, classification of valuation methods	DB	HAN Ch 3 and TBD
30	23-10-2015	Environmental valuation; Pigouvian tax, classification of valuation methods	DB	HAN Ch 3 and TBD
31	26-10-2015	Environmental valuation: exercises	DB	RMA, selected case studies
32	28-10-2015	Environmental valuation: exercises QUIZ 4	DB	RMA, selected case studies
33	30-10-2015	Economics of renewable resources	DB	TBD
34	02-11-2015	Economics of non-renewables	DB	TBD
35	04-11-2015	Ecological Economics: critique of circular flow	DB	TBD
36	06-11-2015	Ecological Economics: natural capital & ecosystem services QUIZ 5	DB	TBD

37	09-11-2015	Elements of macro economics: national income accounting and green accounting	BT	SAM Ch. 20, 21
38	11-11-2015	Elements of macro economics: national income accounting and green accounting	BT	SAM Ch. 20, 21
39	13-11-2015	Fundamentals of development economics; growth and development	BT	DEN Ch. 1,4
40	16-11-2015	Fundamentals of development economics; growth and development	BT	DEN Ch. 1, 4
41	18-11-2015	Key theories of development: Rostow, Harrod-Domar, Lewis, Dependence theory	BT	TOD Ch. 3 and 4
42	20-11-2015	Key theories of development: Rostow, Harrod-Domar, Lewis, Dependence theory	BT	TOD Ch. 3 and 4
43	23-11-2015	Poverty	BT	DEN Ch. 6
44	25-11-2015	Inequality and distribution of income	BT	DEN Ch 6
45	27-11-2015	Heterodox approaches to development	BT	DEN Ch 3
46	30-11-2015	Multidimensional approaches to poverty; poverty as capability deprivation	BT	DEN Ch 6
47	02-12-2015	Political economy and Marxian economics	BT	Set of articles
48	04-12-2015	Extensions of political economy QUIZ 6	BT	Set of articles
Written exam	09-12-2015 (Time: TBD)			

BT: Bejoy K Thomas, DB: Durba Biswas, UK: Ulka Kelkar

#### 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)
- Deneulin, S and L Shahani (eds) (2009) An Introduction to the Human Development and Capability Approach: Freedom and Agency, Earthscan (DEN)